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NOTES ON SOME NORTH AMERICAN BIRDS
OF THE GENERA MYIODYNASTES, PITANGUS,
AND MYIOCHANES

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The following remarks are in the nature of a summary of several years of investigation into the status of certain *Tyrannidae* which come within the scope of the American Ornithologists' Union Check-List. Data on which conclusions have been based have been gathered through personal inspection of most of the major and several of the minor collections both in America and abroad. Of course it has not been possible to assemble all material for direct comparison at one time; however, certain critical specimens have been re-examined on various occasions.

Myiodynastes luteiventris

Some years ago (Condor, 29, 1927, p. 126) the writer named the sulphur-bellied flycatcher of Arizona and northwestern Mexico as *Myiodynastes luteiventris swarthy*, and as such it stands in the present (1931) edition of the Check-List. Recently, Zimmer (Amer. Mus. Novit., 963, 1937, pp. 1-5) has decided that the name *swarthy* is antedated by *vicinior* Cory, described (Field Mus. Nat. Hist., Orn. Ser., 1, 1916, p. 342) from an October male in juvenal plumage from Peru. I do not agree with this course for several reasons.

In Yucatan and the more arid parts of Guatemala there occur, scattered among normal *luteiventris*, occasional individuals with color characters very similar to those shown by the northwestern race, that is to say they are paler and more sparsely streaked below and paler and more ashy above than typical *luteiventris*. This fact has also been noted by Zimmer. Practically the only means of distinguishing such specimens from *swarthy* is the slightly smaller size. As an additional complication juveniles of both races seem to be more variable in color than are adults.

The type of *Myiodynastes luteiventris vicinior* (44,859 Field Museum) was examined by me in 1927 and again in 1939. It is, just as Zimmer has stated, a fully grown juvenile which is good *swarthi* in color. But its wing and tail measurements are small and are as follows: wing, 105; tail, 74 mm. The smallest juvenal male *swarthi* measured by me (and this specimen still has the wing feathers sheathed at the bases) has a wing of 108 and a tail of 78 mm. An almost exact match for the type of *vicinior* in measurements and color is No. 7946 in the United States National Museum from "Guatemala," a bird undoubtedly native to the region, for the last traces of sheathing are just being shed from the bases of the rectrices.

In view of the above and remembering also Zimmer's own conclusion that "some specimens from the apparent breeding range of *luteiventris* are not clearly separable [in color] from *swarthi*," I see no good reason for changing a name of certain application for one which is decidedly questionable. It is only fair to Mr. Zimmer, though, to remark that the larger size of *swarthi* was not mentioned in the original diagnosis.

The matter of the moults of the sulphur-bellied flycatcher is by no means settled. Zimmer states that the entire moult (presumably of both adults and young) is carried out in winter quarters. This is emphatically not the case in my experience. There are several fall examples of *swarthi* at hand (adults and young) which show substantial premigration body moult, while in El Salvador the fall body moult of *luteiventris* is practically complete before migration. The old remiges and rectrices, though, seem always to be retained and are evidently replaced in winter quarters. There are analogies among certain other migratory *Tyrannidae*, notably in some species of *Empidonax*.

Pitangus sulphuratus

During the past several years I have examined all specimens of the Derby flycatcher in the collections of the American Museum of Natural History, the Bishop collection, the British Museum, the Bureau of Biological Survey, the Carnegie Museum, the Dickey collection, the Field Museum, the Los Angeles Museum, the San Diego Society of Natural History, the United States National Museum, and, in part, those in the Museum of Comparative Zoology. The total is well in excess of 400 specimens, of which some 300 have been measured, noted and tabulated. The remainder have been used principally as checks on the more detailed data.

To attempt to lump the Texas, Mexico, and Central American populations of the Derby flycatcher under one or even two races is not in accordance with the accumulated evidence. Ridgway (Birds of No. and Mid. Amer., 4, 1907, p. 672) went so far as to include everything from Costa Rica northward under one name but he had utterly inadequate material; Hellmayr (Catl. Bds. Amer., 5, 1927, p. 148) followed a similar course. The latest reviewer, Zimmer, (*sup. cit.*, pp. 24-28) recognized two races, although somewhat reluctantly. The present writer can readily appreciate four distinct races in this same great area and, in

addition, two character trends which, eventually, it may be desirable to recognize by name.

As preliminary remarks concerning the geographic pattern of *Pitangus sulphuratus* in Central America and Mexico, it may be stated that west coast and interior birds are paler brown (less olivaceous) dorsally than those from the east coast; they have the lateral rectrices more extensively rufous (less dusky), and have paler yellow under parts. The exception to this general trend is in Yucatan, a matter which will be considered further. Size increases northerly in the interior and northeast; in the Pacific coast lowlands it remains, in general, small, save for an increase in bill size northerly. The various combinations of size and color from western Panama northward are considered under the following names.

Pitangus sulphuratus guatemalensis (Lafresnaye)

CENTRAL AMERICAN DERBY FLYCATCHER

Saurophagus guatemalensis Lafresnaye, Rev. et Mag. Zool., Oct., 1852, p. 462 ("Guatemala").

Subspecific characters.—A relatively small race of brighter yellow ventral coloration, darker (more olivaceous) upper parts, a minimum of rufous in the lateral rectrices, and with a comparatively short, shallow bill.

Range.—Western Panama north throughout Central America to Tabasco and southern Vera Cruz on the east coast and to the Isthmus of Tehuantepec on the west coast.

Remarks.—I cannot distinguish specimens from Tabasco and southern Vera Cruz from eastern Central American birds. Western specimens from El Salvador northward to Tehuantepec are equally small but are somewhat paler; indeed some Chiapas and Oaxaca individuals very definitely approach the interior race *derbianus* in color and bill shape. However, details of the intergradation of *guatemalensis* and *derbianus* are so involved with altitude that determination of individual specimens is necessarily often arbitrary in the Tehuantepec region. This latter area may, for the present, be taken as the northwestern limit of *guatemalensis*.

Somewhat puzzling are the characters shown by a considerable number of Yucatan birds. So far as material examined from Cozumel, Mujeres, and Buctotz Islands is concerned there would seem to be ample grounds for the recognition of a small, ventrally very pale colored insular race. But similar specimens appear now and then from localities so far south on the mainland of the peninsula as San Filipe. This fact combined with the certainty that the great bulk of Yucatan mainland birds are typical *guatemalensis* leads one to suspect that in *Pitangus*, as in *Myiodynastes*, there is in this region, a tendency to pallor which crops out in a certain proportion of individuals. In this connection must be considered the type of *Pitangus sulphuratus pallidus* Griscom (Amer. Mus. Novit., 414, 1930, p. 4), named from a single specimen from Sacapulas in the arid eastern interior

of Guatemala. While it is possible that this type (395,047 Amer. Mus.) is a normal individual of a localized race, or is an example similar to the Yucatan birds mentioned above, it is my distinct impression, after a careful examination, that it is an abnormal *guatemalensis* which shows evidences of albinism. With this last supposition Mr. Zimmer, who has re-examined the type with me, is inclined to agree. At any rate the validity of the name requires confirmation.

***Pitangus sulphuratus texanus* subsp. nov.**

TEXAS DERBY FLYCATCHER

Type.—Male adult, 135,066 United States National Museum; Brownsville, Texas; collected by F. B. Armstrong on Dec. 8, 1893.

Subspecific characters.—Most closely resembling *Pitangus sulphuratus guatemalensis* (Lafresnaye) of Central America and southeastern Mexico, but differing in generally larger size, particularly in longer tail and bill; coloration slightly paler throughout and with much more white on forehead and superciliary region. Differs from *Pitangus sulphuratus derbianus* (Kaup) of central interior and southwestern Mexico in more olivaceous and slightly darker dorsal coloration, lateral rectrices with less rufous on inner webs, and in having a shorter wing, longer tail and shallower bill.

Range.—Lower Rio Grande Valley of Texas (Laredo; Hidalgo; Brownsville; etc.), south to Tamaulipas (many localities), Nuevo Leon (Rio Comacho) and northern and central Vera Cruz.

Remarks.—Central Vera Cruz specimens are so variously intermediate between *texanus* and *guatemalensis* that individuals are sometimes difficult to place. For example, six specimens from Tlacotalpan are extremely variable but average closer to *texanus*. Vega del Cazadero, Atoyac, Jalapa, and Colipa specimens are all large but are variously intermediate in color. Present data seem to indicate La Antigua as the northern limit of *guatemalensis* in reasonably stable form but a small proportion of birds from as far north as Misantla are individually closer to *guatemalensis*. It seems not unlikely that altitude plays a part in the southern limits of *texanus* and the northern limit of *guatemalensis* and that intergradation between the two races is really not so "spotty" as present data might seem to indicate.

***Pitangus sulphuratus derbianus* (Kaup)**

INTERIOR DERBY FLYCATCHER

Saurophagus Derbianus Kaup, Proc. Zool. Soc. Lond., 1851 [Read Feb. 11, 1851; pub. Oct. 28, 1852], p. 44 (Zacatecas, in Mexico).

Subspecific characters.—Differs from *Pitangus sulphuratus texanus* van Rossem of southeastern Texas and northeastern Mexico in longer wing, slightly shorter tail, thicker and slightly narrower bill in which the depth at nostrils is about equal to the width at the same point, paler and more grayish brown (less olivaceous) dorsal coloration, and with lateral rectrices with more rufous (less dusky) on inner webs.

Range.—Central and southwestern Mexico from Zacatecas south through interior Jalisco, interior Nayarit, Guanajuato, Michoacan, Colima, Morelos, Puebla, Mexico, Guerrero, and Oaxaca to the Isthmus of Tehuantepec.

Remarks.—Kaup's type was a specimen received by him from Wollweber from some place in Zacatecas and the analogies of other species obtained from the same source indicate the central or eastern part of that State. Fortunately, Kaup gives minute measurements of his type and these provide definite information as to which race he had in hand. The long wing, relatively short tail and long bill (128, 92, 32 mm., resp.) place it as from the interior.

In this connection it is opportune to correct a misconception as to the location of the type of *derbianus*, which is universally cited as being in the Derby Museum. Kaup, although he titled his paper "Descriptions of some New Birds in the Museum of the Earl of Derby," described several species from specimens outside of that institution. In the present case he specifically states that he had received a single specimen from Wollweber from Zacatecas but that he "found in the collection of Lord Derby and in the British Museum a great number of the same species." His description was written a year or more after his visit to England and, in view of his specific designation of a type locality and of his other remarks, there is little reason to suppose that it was drawn from any other specimen. So far as I could determine by a personal search (in 1933) this type is no longer in the Darmstadt Museum, but this is not surprising in view of the condition of the remnants of the old collection there. It is also worth noting that Wolf's plate (XXXVI) is that of a typical *guatemalensis*, both in size and color and certainly is not the individual described by Kaup. The "type" of the plate may be in the Derby Museum but on this point I have no first-hand information.

The characters of *derbianus* appear to hold very uniformly throughout the interior but in the Pacific lowlands the situation is similar to that found in the area of intergradation between *guatemalensis* and *texanus* on the east coast; in other words, characters are extremely variable from Nayarit south to Oaxaca. Here, again, altitude probably is a decisive factor, but lack of data do not permit definite conclusions. Lowland birds from Nayarit are very close to *palliatius*, but one from Rio Amatlan in that State is typical *derbianus* (Amer. Mus.). Guadalajara and Bolaños (Jalisco) specimens are intermediate but average decidedly closer to *derbianus* than to *palliatius*. City of Colima specimens are certainly *derbianus* but lowland birds from the same State are smaller. Interior specimens from Iguala, Guerrero (series in the Field Museum) are typical *derbianus* but coastal examples (Acapulco) are smaller and brighter colored. In view of the apparently unstable characters it seems best, at the present time, to call all coastal Derby flycatchers from Jalisco southward *derbianus*, with tendencies, coastwise, toward *guatemalensis* southerly and toward *palliatius* in Colima, Nayarit, and Jalisco. What is probably a vagrant is a typical *derbianus* from Tonalá, Chiapas (Univ. Mich.) taken on May 15, 1939. However, four other Tonalá specimens (British Museum) are *guatemalensis*, although of the slightly paler type found all along the west coast from El Salvador northward.

Pitangus sulphuratus palliatus van Rossem

SONORA DERBY FLYCATCHER

Pitangus sulfuratus [sic] *palliatus* van Rossem, Proc. Biol. Soc. Wash., 50, Feb. 23, 1937, p. 25 (Alamos, Sonora, Mexico).

Subspecific characters.—A small race which resembles *Pitangus sulphuratus guatemalensis* in small size but from which it differs in longer and larger bill, paler and more grayish brown upperparts, paler and more primrose (less lemon) yellow underparts, and lateral rectrices more rufous (less dusky) on inner webs. Differs from *Pitangus sulphuratus derbianus* of interior Mexico in much smaller general size and shallower, though equally long, bill.

Range.—Lowlands (Arid Tropical Zone) of southern Sonora south, coastwise, to Nayarit.

Remarks.—This appears to be a lowland race and confined to the Arid Tropical Zone lowlands. The extreme accentuation of characters is seen in southern Sonora and northern Sinaloa; southern Sinaloa and Nayarit specimens tend to be slightly brighter and also sometimes show intergradation with *derbianus*.

MEASUREMENTS OF ADULT MALES

Extremes and Averages

	Wing	Tail	Culmen	Depth at nostril	Width at nostril
20 <i>guatemalensis</i>	113-120 (116.4)	84-90 (87.2)	25.0-30.0 (27.6)	8.5-9.5 (9.0)	9.0-11.0 (10.1)
20 <i>texasus</i>	117-128 (122.6)	91-101 (96.0)	29.0-32.0 (30.3)	9.0-10.0 (9.2)	10.0-11.5 (10.6)
20 <i>derbianus</i>	125-131 (130.0)	90-96 (93.4)	30.0-32.0 (30.8)	9.5-11.0 (10.1)	9.5-11.0 (10.3)
15 <i>palliatus</i>	114-125 (119.1)	86-94 (89.8)	28.0-33.0 (30.1)	9.0-10.0 (9.7)	10.0-11.5 (10.6)

Myiochanes virens

On two previous occasions (Trans. San Diego Soc. Nat. Hist., 6, 1931, p. 265, and Bull. Mus. Comp. Zool., 77, 1934, p. 450), I have called attention to the characters of a race of wood-pewee which occurs in northwestern Mexico and the Sonoran Zones of extreme south-central Arizona. Application of a definite name was delayed for several reasons, among them investigation into the status of *Contopus veliei* Coues, of *Contopus plebeius* Cabanis and Heine, and of *Contopus sordidulus* Sclater. Now that none of these names seem to be available, as will be noted later, the new race is called.

Myiochanes virens placens subsp. nov.

Type.—Breeding male adult, No. 31,609 Dickey collection; Madera Cañon, Santa Rita Mountains, Santa Cruz County, Arizona, altitude 6000 feet in the Upper Sonoran Zone, June 2, 1931; collected by A. J. van Rossem.

Subspecific characters.—Differs from *Myiochanes virens richardsonii* (Swainson) of the Rocky Mountain region of the United States and Canada in smaller size and paler and grayer coloration throughout. Differs from *Myiochanes virens sordidulus* (Sclater) of eastern Mexico in much paler coloration and smaller bill. Differs from *Myiochanes virens peninsulae* (Brewster) of Lower California in even paler and grayer coloration and in very much smaller bill.

Range.—Sonoran zones of extreme south-central Arizona south through the Sonoran and Transition zones of central and eastern Sonora and western Chihuahua. Winter range unknown, but migrates through El Salvador (August; October; March; April), western Nicaragua (Chinandega, May 2), and Chiapas (San Cayetano, May 2).

Remarks.—Careful consideration has been given to the only three names which conceivably could apply to the new race. Sclater's type of *Contopus sordidulus* (88.1.13.1024) was examined at the British Museum in 1933 and again in 1938. On the latter occasion the authorities of that institution very kindly had one side of this specimen thoroughly cleaned with soap and water and also with a solvent. As a result the dark coloration was found not to be adventitious, for there was no discernible difference between the "clean" and "dirty" portions of the plumage. In color characters this type is very similar to darker examples of *richardsonii* (though not so dark as the race *saturatus* Bishop). The wing bars are very inconspicuous, the anterior being almost obsolete, and the pileum is only slightly darker than the back. The wing tip is much more rounded than is usual in other races of this species, the outermost (10th) primary being equal to the 6th, and the 9th shorter than the 8th but longer than the 7th. The measurements are: wing, 83; tail, 63; culmen from base, 18.5; exposed, 14.0; from nostrils, 10.5; width at nostrils, 7.0; tarsus, 13.6; middle toe minus claw, 7.8 mm. It was collected by Botteri at Orizaba, Vera Cruz, Mexico, but other data are lacking. My estimate is that it was collected in spring.

The name of *Contopus veliei* was coined by Coues (Proc. Acad. Nat. Sci. Philadelphia, 1866, p. 61, in text) as provisional to apply to the grayer western wood-pewees in case there should prove to be two species, or, as that author expressed it, to apply to those birds having the appearance of "a miniature of *C. borealis*." He states furthermore that there are no size differences between his two, hypothetical, species. No type, type locality, or range was mentioned and the name is only dubiously of valid status even as a synonym of *richardsonii*. In the U. S. National Museum is a fully adult male (36,938), the type tag on which is inscribed by Ridgway as the type of *veliei*. It was taken by Coues himself at Fort Whipple, Arizona, on August 10, 1864, and on the old tag is written "*veliei* [sic] Coues" in what, presumably, is his handwriting. Under the circumstances this individual can be considered at best a lectotype. The late Harry Swarth fully agreed with me that what Coues hypothecated by "*veliei*" was simply a color phase of *richardsonii*, and that even if the name had any nomenclatural standing (which he doubted) it could not be used for the small southern birds if such were to be distinguished. Incidentally, the wing and tail measurements of this specimen are 88 and 65 mm. respectively.

Lastly, there is *Contopus plebeius* Cabanis and Heine (Mus. Hein., 2, Sept., 1859, p. 71, footnote) described simply as from "Mexico." I have not seen the two co-types of this species but for several reasons, among them the wing measurement of 76 mm., think the name is most probably a synonym of *Myiochanes brachytarsus* (Sclater). There is the remote possibility, of course, that they *might* be extremely small migratory specimens of *placens*, but geographical considerations are against this.

It is of interest to observe that *placens* crosses the Arizona-Mexico boundary in almost the identical area in which the beardless flycatcher occurs and, to a great extent, occupies the same riparian habitats. Breeding localities from which typical *placens* has been examined in Arizona are Arivaca, Peña Blanca Spring, Tumacacori, Continental, and the Upper Sonoran Zone in the Santa Rita Mountains. Series from the higher parts of the Chiricahua Mountains, from many altitudes in the Huachuca Mountains, the Rincon Mountains, and the White Mountains are of practically the same small size as *placens* but are darker in color and it seems best to consider them as *richardsonii-placens* intergrades. A single breeding specimen from the Transition Zone in the Santa Ritas (9000 feet) is an undoubted *richardsonii*.

MEASUREMENTS

	<i>Wing</i>	<i>Tail</i>	<i>Exposed Culmen</i>
20 adult males of <i>placens</i>	80-84 (83.4)	59-64 (62.2)	11.6-12.8 (12.4)
23 adult females of <i>placens</i>	77-82 (79.4)	57-63 (59.8)	11.8-13.0 (12.4)